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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,884	04/17/2002	Yvette Lienart	USB 98 BC CNR PHY/cdm-kb	8604

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EXAMINER

MCINTOSH III, TRAVISS C

ART UNIT	PAPER NUMBER
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1623

DATE MAILED: 04/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/018,884

Applicant(s)

LIENART ET AL.

Examiner

Traviss C McIntosh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-18 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 April 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: \_\_\_\_\_

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***Detailed Action***

Acknowledgement is made of the preliminary amendment filed April 17, 2002, paper number 7. The amendment filed affects the instant application by the following:

Claims 3-5, 9, and 11 have been amended.

Claims 1-18 are pending in the instant application.

***Priority***

Continuity data for the instant application, including any §371 data, must be inserted as the first sentence of the specification of this application or in an application data sheet (37 CFR 1.76).

***Drawings***

The drawings are objected to because figure 1 makes reference to "CLUC". It is noted that it appears that this was intended to be "GLUC", as the specification indicates on page 11, line 29. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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Claims 1-7 and 9-12 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

### ***Claim Objections***

Claims 6 and 16 are objected to because of the following informalities: there is a comma missing after "and of average DP 8" at the end of the third line of the claims. Appropriate correction is required.

Claim 8 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to the other claims in the alternative only. See MPEP § 608.01(n). Claim 8 currently stands as being dependent upon claim 7 and claim 1. Accordingly, the claim has not been further treated on the merits.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7, 9-12 and 15-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-7 and 9-12 provide for the use of various compounds as phytosanitary products or biofertilizers, but, since the claims do not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Regarding claims 2, 5, 9, 15, 17 and 18, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 5 recites the broad recitation "whose DP is less than 30", and the claim also recites "preferably between 2 and 15" which is the narrower statement of the range/limitation. Claim 9 recites the broad recitation "whose DP is below approximately 30", and the claim also recites "preferably between 2 and 15" which is a narrower

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statement of the range/limitation. Claim 11 recites the broad recitation “whose DP is below approximately 30” and the claim also recites the limitation “whose DP is below approximately 30” and the claim also recites “preferably between 2 and 15” which is a narrower statement of the range/limitation. Claims 17 and 18 both recite the broad recitation “whose DP is less than approximately 30” and then they both recite “preferably between 2 and 15” which is a narrower statement of the range/limitation.

Claim 18 is indefinite wherein the claim is drawn to a product, i.e., a biofertilizer, but depends from claim 11, which is a use/method claim. It is unclear how the limitations of claim 18 effect the claims from which it depends. It appears that the claim should depend from claim 13.

All claims which depend from an indefinite claim are also indefinite. *Ex parte Cordova, 10 U.S.P.Q. 2d 1949, 1952 (P.T.O. Bd. App. 1989).*

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

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do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

The claims of the instant application are drawn to the following: claim 13 is drawn to a product comprising one of the following: the 1,4- $\beta$ -D-glucuronan polymers of formula I, a  $\beta$ (1,4) glycuronic oligosaccharide derived from polymers of formula I which has less than about 30 monosaccharide units, and/or esters or ether of the polymer of formula I. Claim 14 is drawn to a product of 13 which includes at least one 1,4- $\beta$ -D-glucuronan polymer of formula I wherein n is between 300 and 2500 and R is H. Claim 15 is drawn to a product of 13 which includes at least one  $\beta$ (1,4) glycuronic oligosaccharide derived from polymers of formula I whose degree of polymerization is at least about 20. Claim 16 limits the product of 15 wherein the product comprises 1,4-  $\beta$ -D-glucuronans having a degree of polymerization of 8, or a 1,4- $\beta$ -D-mannuronan having a degree of polymerization of 4, or a 1,4- $\beta$ -D-guluronan with a degree of polymerization of 4. Claim 17 limits the product of claim 13 to include at least one  $\beta$ (1,4) glycuronic oligosaccharide derived from polymers of formula I which has a degree of polymerization (DP) of less than about 30.

Claims 13-15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Josiane et al. (FR 2,688,222).

Josiane et al. disclose a product which is a 1-4- $\beta$ -D-glucuronan polymer which is identical to formula I of the instant applications claims, wherein n=300 to 2500 in both instances

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(abstract). Josiane et al. additionally claim the corresponding esters and ethers (claim 1) and further disclose that these polymers can be hydrolyzed to products having a DP of between 2 and 100, and preferably 5-20 (claim 13).

Claims 13 and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Adachi et al. (US Patent 4,993,185).

Adachi et al. disclose an oligosaccharide derived from alginic acid which comprises 2-20 molecules of guluronic acid only, 2-20 molecules of mannuronic acid only, or 2-20 molecules total of the combination of guluronic acid and mannuronic acid (column 2, lines 1-9).

Claims 13 and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaisha (JP 4335839).

Kaisha disclose an alginic acid oligosaccharide which comprises oligosaccharides with a degree of polymerization of 2-20 and containing guluronic acid and/or mannuronic acid (abstract).

Claims 13 and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Adachi et al. (US Patent 5,588,254).

Adachi et al. disclose alginic acid oligosaccharides which when hydrolyzed produces an oligosaccharide comprising 2-20 molecules of guluronic acid only, 2-20 molecules of mannuronic acid only, or 2-20 molecules total of the combination of guluronic acid and mannuronic acid (column 2, lines 33-45).



Claims 13 and 15-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakanishi et al. (US Patent 5,952,308).

Nakanishi et al. disclose an oligouronic acid with a degree of polymerization from 1-9 wherein the oligouronic acid is selected from oligogalacturonic acid, oligomannuronic acid, and oligoglucuronic acid. (claims 1 and 3, and 5-6).

The disclosures of the above identified references indeed are seen to anticipate the claims, as set forth supra, of the instant application.

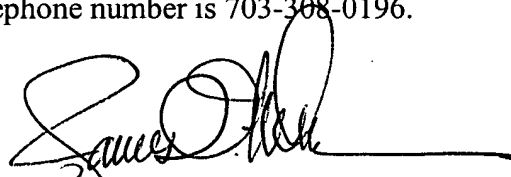
#### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Traviss McIntosh whose telephone number is 703-308-9479. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on 703-308-4624. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-305-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

Traviss C. McIntosh  
April 17, 2003



James O. Wilson  
Supervisory Patent Examiner  
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